

# **Notice of Allowability**

Application No.

09/772,493

Examiner

Le Nguyen

Applicant(s)

DUEMLER, DAVID W.

Art Unit

2174

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendment filed 6/2/05.
2. ☒ The allowed claim(s) is/are 1-19 and 49-74.
3. ☒ The drawings filed on 30 January 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## **Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                       |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                     | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance              |
|  | 9. <input type="checkbox"/> Other _____.  |

***Examiner's Amendment and Reasons for Allowance***

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Jo Powers on 8/22/05.

3. The application has been further amended as follows:

Claim 17 has been amended as follows:

17. A computer-readable medium encoded with a computer program code that when executed by a processor causes the processor to ~~for programming a~~ programmable logic controller to direct a process, said programmable logic controller including a plurality of inputs and a plurality of outputs, said programmable logic controller directing said process through output signals at said outputs in response to input signals at said inputs, the medium comprising:

a first code segment for displaying to a user on a monitor a graphical data entry user interface for a plurality of sequential steps to be directed by said programmable logic controller, said graphical data entry user interface representing respective inputs to be monitored by said programmable logic controller at each of said sequential steps and respective outputs to be initiated by said programmable logic controller at respective ones of said sequential steps;

a second code segment for receiving for said process, via said graphical data entry user interface, an identification of at least one input selected by said user to be monitored for at least one of said sequential steps and an identification of at least one output selected by said user to be initiated for said at least one of said sequential steps;

a third code segment for converting said identification of said at least one input selected by said user into an input control data table, said input control data table including a plurality of input control data elements, each of said input control data elements corresponding to a respective one of said plurality of sequential steps, a respective one of said input control data elements representing said at least one input selected by said user; and

a fourth code segment for converting said identification of said at least one output selected by said user into an output data table, said output data table including a plurality of output data elements, each of said output data elements corresponding to a respective one of said plurality of sequential steps, a respective one of said output data elements representing said at least one output selected by said user.

Claim 67 has been amended as follows:

67. A computer-readable medium encoded with program code ~~for causing a processor~~ that when executed by a processor causes the processor to program a programmable logic controller to direct a process, said programmable logic controller directing said process through output signals at outputs coupled to said programmable logic controller in response to input signals at inputs coupled to said programmable logic controller, comprising:

a first code segment for displaying to a user on a monitor a graphical data entry user interface representing a plurality of programmable sequential steps for programming by said user to be executed by said programmable logic controller in directing a process, said graphical data entry user interface representing a plurality of inputs for selection by said user to be monitored by said programmable logic controller at each of said programmable sequential steps and a plurality of outputs for selection by said user to be initiated by said programmable logic controller at each of said programmable sequential steps;

a second code segment for receiving, for each step of a control program being programmed by said user via said graphical data entry user interface requiring monitoring of inputs and/or initiation of outputs coupled to said programmable logic controller, an identification of any inputs selected by said user to be monitored and an identification of any outputs selected by said user to be initiated, each step of said control program being programmed by said user corresponding to a respective step from said plurality of programmable sequential steps from said graphical data entry user interface; and

a third code segment for converting said identifications of said inputs and outputs selected by said user into data elements to be provided to said programmable logic controller for execution as part of said control program.

Claim 20 has been cancelled.

Claim 21 has been cancelled.

Claim 22 has been cancelled.

4. The following is an examiner's statement of reasons for allowance:

The prior art made of record fails to anticipate or make obvious the claimed invention. Specifically, the prior art fails to teach, in combination with the remaining elements: a method of configuring I/O that interfaces with the programmable logic controller (PLC), i.e. a GUI for programming a PLC to direct a process via sequential steps to be directed by the PLC where each of these steps displayed in the graphical data entry user interfaces is shown with possible inputs and outputs to be monitored/initiated at each respective step. Moreover, the interface taught by the prior art made of record is not designed to receive the process, which the PLC is being programmed to direct, via the GUI an identification of at least one input selected by the user to be monitored for at least one of the sequential steps displayed in the interface and an identification of outputs to be triggered for that step. Therefore, the prior art made of record does not teach or suggest the claimed limitations as recited in each independent claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Inquires***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Lê Nguyen whose telephone number is **(571)**

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**272-4068.** The examiner can normally be reached on Monday - Friday from 7:00 am to 3:30 pm (EST).

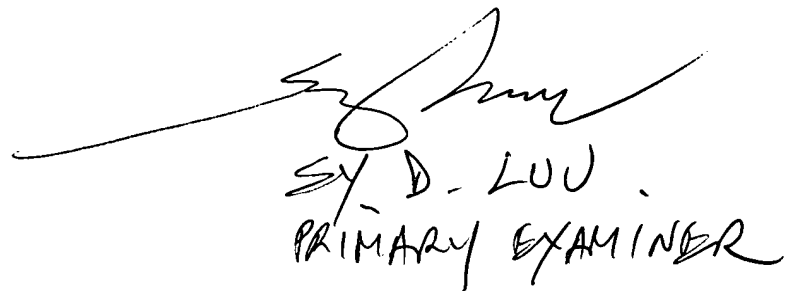
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid, can be reached on (571) 272-4063.

The fax numbers for the organization where this application or proceeding is assigned are as follows:

(703) 872-9306 [Official Communication]

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

LVN  
Patent Examiner  
August 22, 2005



SY D. LUU  
PRIMARY EXAMINER